

APPLICATION NO.

09/889.687

# UNITED STATES PATENT AND TRADEMARK OFFICE

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KHARE, DEVESH

PAPER NUMBER

ART UNIT
1623
DATE MAILED: 03/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/889,687	DEKANY ET AL.
	Examiner	Art Unit
	Devesh Khare	1623
The MAILING DATE of this communication Period for Reply	appears on the cover sheet	with the correspondence address
A SHORTENED STATUTORY PERIOD FOR REI THE MAILING DATE OF THIS COMMUNICATIO  Estensions of time map be available under the provisions of 3 CFR afer SIX (6) MONTHS from the mailing date of this communication.  If the period for reply specified above is less than thirty (30) days, a.  If NO period for reply sepecified above, the maximum statutory per Failure to reply within the set or oxtended period for reply will by the Any reply received by the Office later than three months after the meamed partent form adjustment. See 3 CFR 1.704(b).	N. R. 1.136(a). In no event, however, may reply within the statutory minimum of iod will apply and will expire SIX (6) Matute, cause the application to become	r a reply be timely filed thirty (30) days will be considered timely. CONTHS from the mailing date of this communication. ABANDONDE (35 U.S.C. § 133).
Status		
1) Responsive to communication(s) filed on 06	6 October 2003.	
2a)⊠ This action is <b>FINAL</b> . 2b)□ This action is non-final.		
3) Since this application is in condition for allowance except for formal matters, prosecution as to the ments is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.		
Disposition of Claims		
4)⊠ Claim(s) 12-18,21 and 22 is/are pending in 4a) Of the above claim(s) is/are witho 5)□ Claim(s) is/are allowed. 6)⊠ Claim(s) 12-18,21 and 22 is/are rejected. 7)□ Claim(s) is/are objected to. 8)□ Claim(s) are subject to restriction an	drawn from consideration.	
Application Papers		
9) The specification is objected to by the Exam  10) The drawing(s) filed on is/are: a) Applicant may not request that any objection to the Replacement drawing sheet(s) including the continuity.  The oath or declaration is objected to by the	accepted or b) objected the drawing(s) be held in abe rection is required if the draw	yance. See 37 CFR 1.85(a). ing(s) is objected to, See 37 CFR 1.121(d).
Priority under 35 U.S.C. § 119		
12) Acknowledgment is made of a claim for fore a) All b) Some c) None of: 1. Certified copies of the priority docume. 2. Certified copies of the priority docume. 3. Copies of the certified copies of the paplication from the International Bure. * See the attached detailed Office action for a legistration.	ents have been received. ents have been received in priority documents have be eau (PCT Rule 17.2(a)).	n Application No en received in this National Stage
Attachment(s)		
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/Paper No(s)/Mail Date	Paper I	w Summary (PTO-413) lo(s)/Mail Date of Informal Patent Application (PTO-152) 

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Applicant's Amendment and remarks filed on 10/06/03 are acknowledged.

Claims 12, 14, 16, and 17 have been amended. Claims 19 and 20 have been cancelled.

Claims 12-18, 21 and 22 are currently pending in this application.

### 35 U.S.C. 112, second paragraph rejection

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 12-18, 21 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention of record.

- (A) In the absence of the specific moieties intended to effectuate modification by "substitution" or attachment to the chemical core claimed, the term "substituted" in all occurrences renders the claims in which it appears indefinite wherein applicant fails to articulate by chemical name, structural formula or sufficiently distinct functional language, the particular moieties applicant regards as those which will facilitate substitution, requisite to identifying the compound of matter claimed
- (B) The phrase, in claim 12, "an orthogonally protected monosaccharide", is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Applicant should consistently set forth the identity of the orthogonally protected monosaccharide.

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(C) The term "sets" of protecting groups are not defined in all occurrences renders the claims in which it appears indefinite.

- (D) Claim 17 is rejected as being incomplete for omitting essential steps of the synthesis, such omission amounting to a gap between the steps. The steps in the glycosylation reaction are missing.
- (E) The use of terms "A-E" in all the occurrences is vague and indefinite .The term

  "A-E" does not define a chemical structure or chemical formula in the claim.

Claims which depend from an indefinite claim which fail to obviate the indefiniteness of the claim from which they depend are also seen to be indefinite and are also rejected for the reasons set forth supra.

(F) Phrases "as defined" and "as defined herein" are indefinite in all the occurrences where the specific location of the definition referenced is not particularly pointed out or distinctly claimed.

## Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 12-18, 21 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamada et al. (EP 578,112 ) of record.

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Yamada et al. disclose a monosaccharide derivative of General Formula II where A is a leaving group at anomeric center represented by the group –SR (R is alkyl) on page 5, compound 1,page 8, compound 33 and page 7, formula III. In Examples 1 and 2 (pages 13 & 14), a method of synthesis of glycoconjugates of thio-β-D-glucopyranoside is disclosed. Also, in claims 5 and 7, a method of synthesis of a disaccharide of formula II from thioglycoside is disclosed. In the absence of the defined protecting group sets 1,2, 6 and 8 and terms A-E in claims 12-18, 21 and 22, the Yamada et al. reference is encompassed by the applicants claims.

#### Rejection Maintained

Rejection of claims 12-18, 21 and 22, under 112, second paragraph for the reasons of record.

#### Response to Arguments

Applicant's arguments filed on 10/06/03 traversing the rejection of claims 12-18, 21 and 22 under 112, second paragraph and under 35 U.S.C. 102(b) have been fully considered but they are not persuasive.

Applicants argue that "there is nothing indefinite in the term "substituted". The skilled artisan knows substituted means modified by the attachment of something (noiety) to a core. Applicant's claims fail to particularly point out such moieties. Metes and bounds of the moieties applicant intends can not be readily ascertained. The presence of the term "substituted" in other document is noted. It is the deficiency in this application which is at issue.

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Applicants argue that "compounds in Yamada et al. are not orthogonally protected monosaccharide building blocks". Yamada et al. disclose a monosaccharide derivative of General Formula II where A is a leaving group at anomeric center represented by the group –SR (R is alkyl) (see page 5, compound 1; page 8, compound 33; and page 7, formula III). Also, a method of synthesis of glycoconjugates of thio-β-D-glucopyranoside from a thioglycoside precursor is disclosed (Examples 1 and 2 (pages 13 & 14). It is noted that in the absence of the defined protecting group sets 1,2, 6 and 8 and terms A-E in claims 12-18, 21 and 22, the Yamada et al. reference is encompassed by the applicants claims.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

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Examiner should be directed to Devesh Khare whose telephone number is (571)272-

0653. The examiner can normally be reached on Monday to Friday from 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson, Supervisory Patent Examiner, Art Unit 1623 can be reached at (571)272-0661. The official fax phone numbers for the organization where this application or proceeding is assigned is (703) 308-4556 or 308-4242.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

Devesh Khare, Ph.D.,JD(3Y). Art Unit 1623 March 1.2004 SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600